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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,227	11/14/2001	Hans-Dieter Borowsky	HHI-033US	7538
959	7590	10/31/2005	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			HARVEY, DIONNE	
			ART UNIT	PAPER NUMBER
			2646	
DATE MAILED: 10/31/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/890,227	Applicant(s) BOROWSKY ET AL.	
	Examiner Dionne N. Harvey	Art Unit 2646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

The finality of the last action is withdrawn.

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “**ring magnet retaining means**”, of claim 1, and the “**center recess**”, of claim 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Line 2 of claim 1 recites the passage "free of external moving operational elements" which is misdescriptive for the following reason:

In the Applicant's provided figure, sound tube **6** is *external* to cylindrical housing 2, and *moves* with an applied rotational force, *operating* to transmit sound to the ear canal of the wearer.

In line 7, it is unclear from the provided figure, how the hole **9** exits into a center recess.

### ***Claim Objections***

3. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 7 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Reiter et al. US 5,724,431** in view of **Gnecco US 5,640,457** and further in view of **Giannetti US 5,675,657**.

Regarding claim 1, shown in **figure 4**, Reiter teaches a treatment device for correcting impairments to hearing, comprising an ear insert portion, *not labeled*, which reads on “*essentially* cylindrically shaped housing”; in **figure 5**, Reiter teaches that the volume control dial **60** may be replaced by screw driver adjustable knob for controlling the volume, thereby reading on “free of external moving operational elements”; and teaches a hole **50** providing external access to the battery compartment, as claimed.

Reiter does not clearly teach that the housing is formed of metal and that said metal housing shields an electronics unit located therein against electromagnetic waves.

In **column 1, lines 13-19**, Gnecco teaches an invention for use in ITC and CIC devices, such as the device disclosed by Reiter, and further teaches in **column 3, lines**

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**21-22**, that it is well known in the art to construct the housing of a treatment device such that it is formed of metal, and whereby the electronic units of the treatment device are shielded against electromagnetic waves. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Reiter and Gnecco, modifying the housing of Reiter such that it is constructed from metal and thereby shields the internal units from electromagnetic interference, so as to provide a hearing device which is not adversely affected by radio signals.

Reiter does not clearly teach that the battery compartment is provided with a ring magnet retaining means.

As best understood with regard to the 112 U.S.C. second paragraph rejection above, Giannetti teaches a battery compartment comprising a cover **31** and a cup-like battery holder. Giannetti further teaches that a magnet **45** is affixed to said cover **31**, reading on "a ring magnet retaining means". Although Giannetti teaches that the magnet **45** is located on the cover **31**, in the case where an air-cell battery is employed, and it is necessary to use said cover **31** for the passage of air into the battery compartment, it would have been obvious for one of ordinary skill in the art at the time of the invention to locate the magnet **45** at the bottom of the cup-like battery holder, since this alternate location will also operate to secure the battery within the device housing.

Regarding claim 7, The combination of Reiter, Gnecco and Giannetti, does not clearly teach that the housing is composed of titanium or a titanium alloy. However, it is well known in the art that titanium is a biocompatible material often used for constructing

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hearing devices intended for implantation. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to construct the housing of Reiter, Gnecco and Giannetti, from titanium, titanium alloy or another metal thereby providing a means for shielding internal electronics from electromagnetic interference, and also having biocompatible characteristics such that the housing's close contact with the wearer's skin will not cause irritation.

Regarding claim 9, Reiter teaches that the battery compartment further comprises a hole **50** for allowing external access of air to the battery.

5. **Claims 2 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Reiter et al. US 5,724,431** in view of **Gnecco US 5,640,457** in view of **Giannetti US 5,675,657**, as applied to claim 1 above, and further in view of **Narisawa US 6,041,128**.

Regarding claim 2, The combination of Reiter, Gnecco and Giannetti, fails to clearly teach a battery compartment comprising a watertight seal from the rest of the housing.

In **column 8, lines 43-47**, Narisawa teaches a battery compartment (**see figure 12**) comprising a watertight seal **45** for preventing the entry of moisture into the rest of the housing. It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the teachings of Reiter, Gnecco and Giannetti, per the teachings of Narisawa, thereby constructing the battery compartment of Reiter such that it includes a watertight seal **45**, for the purpose of enabling the use of air-cell batteries in

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hearing devices wherein sufficient air entry is permitted without the undesired entry of moisture into the device interior.

Regarding claim 5, in **figure 13B**, Narisawa teaches that the housing comprises a first housing component **42** with a battery compartment **40A** being fastened together with a second housing component **40** and an O-ring seal **45** located there between.

6. **Claim 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Reiter et al. US 5,724,431** in view of **Gnecco US 5,640,457** and further in view of **Giannetti US 5,675,657**, as applied to **claim 1** above, and further in view of **Meier US 6,574,343**.

Regarding claim 3, The combination of Reiter, Gnecco and Giannetti, does not clearly teach that a water tight film is used to seal the sound exit opening.

In **column 2, lines 55-57**, Meier teaches a device for use in In-ear hearing devices, and further teaches in **column 4, lines 60-62**, that a sound exit opening may be sealed by an acoustically transmitting, water tight film (also see **column 3, lines 53-56**).

It would have been obvious for one of ordinary skill in the art at the time of the invention to provide the sound exit opening of the Reiter device with a sealing film, for the purpose of preventing ear wax and other debris from penetrating the hearing device, see **column 1, lines 41-51, of Meier**.



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7. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Reiter et al. US 5,724,431** in view of **Gnecco US 5,640**, in view of **Giannetti US 5,675,657**, in view of **Narisawa US 6,041,128**, as applied to claim 2 above, and further in view of **Meier US 6,574,343**.

Regarding claim 4, The combination of Reiter, Gnecco, Giannetti and Narisawa, does not clearly teach that a water tight film is used to seal the sound exit opening.

In **column 2, lines 55-57**, Meier teaches a device for use in In-ear hearing devices, and further teaches in **column 4, lines 60-62**, that a sound exit opening may be sealed by an acoustically transmitting, water tight film (also see **column 3, lines 53-56**).

It would have been obvious for one of ordinary skill in the art at the time of the invention to provide the sound exit opening of the Reiter device with a sealing film, for the purpose of preventing ear wax and other debris from penetrating the hearing device, **see column 1, lines 41-51, of Meier**.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-5, 7 and 9 have been considered but are moot in view of the new ground(s) of rejection.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne N Harvey whose telephone number is 571-572-7497. The examiner can normally be reached on 9-6:30 M-F and alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Dionne Harvey

  
SUHAN N  
PRIMARY EXAMINER